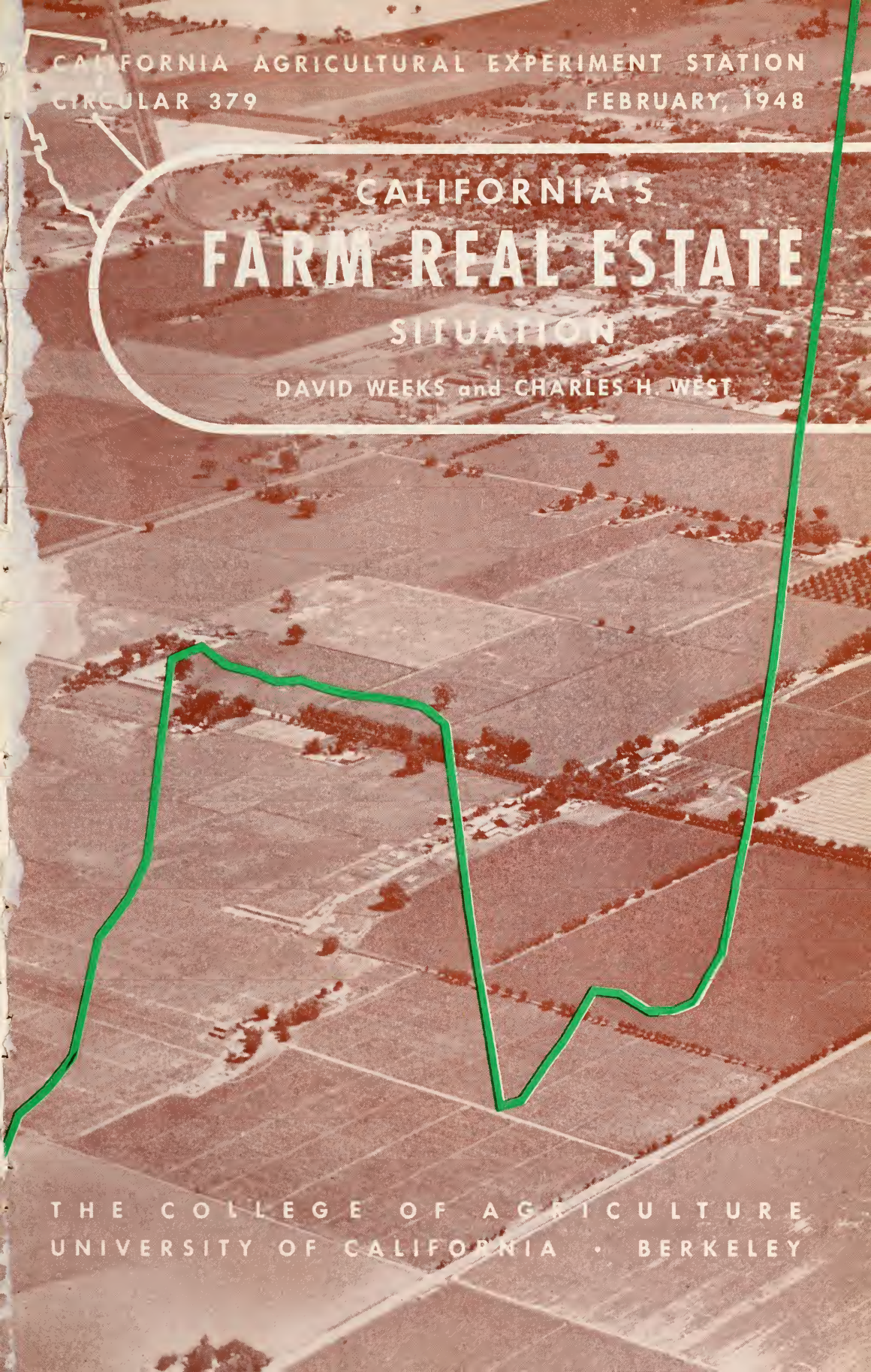
CALIFORNIA AGRICULTURAL EXPERIMENT STATION
CIRCULAR 379
FEBRUARY, 1948

# CALIFORNIA'S FARM REAL ESTATE SITUATION

DAVID WEEKS and CHARLES H. WEST

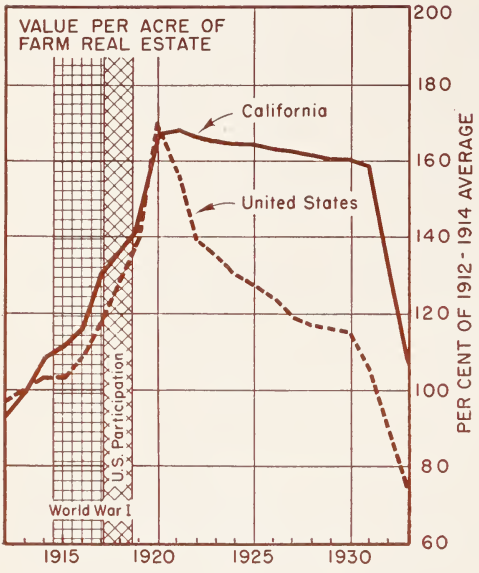


THE COLLEGE OF AGRICULTURE
UNIVERSITY OF CALIFORNIA · BERKELEY

# CALIFORNIA'S FARM REAL ESTAT

## A study of land value

DAVID WEEKS[1] AND




THE AVERAGE PRICE of farm land in California is higher than it has ever been. Californians want to know what will happen next. In the early twenties, California real estate values had climbed to new heights. Within two years after war's end, United States real estate values tumbled abruptly and to new lows, but California farm real estate remained nearly on its war-time high level for ten years, dropping then with the major general depression.

### BEFORE WORLD WAR I

At the outbreak of World War I in 1914, land values in California and in the United States generally were rising.

### DURING WORLD WAR I

Under influence of military action in Europe, inflation of United States real estate values set in before this country entered the war. Rate of increase of values in California paralleled those of the United States. After six years of inflation, California values had risen to 68 per cent above their prewar average, the United States to 70 per cent above.

### AFTER WORLD WAR I

California differed greatly from the United States in behavior of land prices. United States prices dropped abruptly during the first two years, then continued downward until in 1930 they were only 69 per cent of the 1920 peak. California prices dropped very slightly until 1931 when values were still 95 per cent of their 1921 peak.

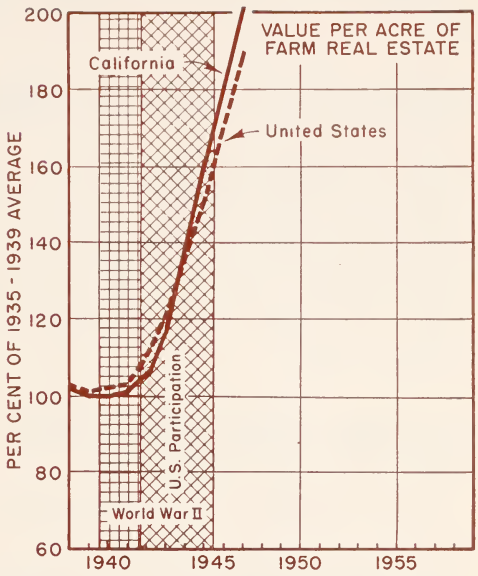
From 1930 to 1933 land values in the entire country fell to the lowest point reached between the two wars. At this low point in 1933, California values were but 65 per cent of their 1921 high, still 9 per cent higher than their prewar level. United States land values in the same year were only 43 per cent of their 1920 high point and were 27 per cent below their prewar level.

# SITUATION . . . . . .

## during two wars

CHARLES H. WEST[2]

IN RECENT YEARS California farm real estate values, again in common with United States farm real estate values, have climbed to even higher levels than before. On March 1, 1947, farm real estate values in California were 45 per cent above their World War I peak, a greater increase than in any other state. Up to the closing months of 1947, land values were still rising but there were signs of an approaching end to this rise and some indication of a probable decline.




### BEFORE WORLD WAR II

After recovering from the depression, farm land prices moved upward to 1937, then showed little change except a slight depression until America's entry into the war.

### DURING WORLD WAR II

Even after the entry of the United States into the war, California increase in values got under way slowly. Finally California farm land values overtook those of United States, then after 1942 rose more rapidly. By the end of hostilities, California values reached 69 per cent above prewar average, while those of the United States reached 64 per cent above.

### AFTER WORLD WAR II

Both the United States and California values continue their upward trend. By March, 1947, California values reached 102 per cent above prewar level, while United States values had advanced 92 per cent.

**WHAT WILL HAPPEN NEXT?**

---

[1] Professor of Agricultural Economics and Agricultural Economist on the Giannini Foundation and in the Experiment Station.
[2] Formerly Director of Research, Farm Credit Administration, Berkeley.

# WHAT MAKES FARM LAND VALUES RISE?

## Definitions of VALUE and PRICE

In this circular we are concerned with the market value of farm land and all of its fixed improvements which together may be more precisely described as farm real estate. For any indicated time or area the market value of farm real estate has the same meaning as the average price per acre of improved farm land. (For the sake of brevity, where the intended meaning has seemed clear, these longer and more precise expressions have been indicated by only a word or two.)

## ALL FARM LAND VALUES ARE AFFECTED BY INFLATION

IN ALL TYPES OF FARMING inflation is present, but different types of farming have shown different rates of increase in land values. Up to 1947 orchard and vineyard lands have increased the most in price; dry farmed grain lands and range lands the least. Field crops and dairy lands have experienced an increase intermediate between these extremes. Table 1 shows how the different types of intensively cropped lands of California have increased in value.

IN ALL FARMING AREAS inflation is present, but the various areas of California have shown different rates of increase. In table 2 it will be seen that for the period tabulated, selling prices in the central valleys began lower and increased farther than in other areas, and continued their increase in 1947. On the other hand, Imperial Valley began at a higher point, showed less over-all increase, and even shows a decline in 1947.

### PERMANENT RISES are caused by—

- Farm real estate improvements
- More acreage put into intensive crops
- Increase in land irrigated
- Subdivision of land into small farms

### TEMPORARY RISES are caused by—

- Commodity prices, through their relation to land income.

These are the factors we are able to measure.

THERE ARE OTHER INFLUENCES at work which are more difficult to measure. Among these are California's population increase, cost-reducing improvements in methods of farming, and construction of the Central Valley Project. In addition to these influences there are the uncertainties of the inter-

## Table 1: INCREASE IN SELLING PRICES OF CALIFORNIA FARMS, SHOWING VARIATION BY CROP

| Year | Expressed in percentages of the 1935–1939 average | | | | | |
|---|---|---|---|---|---|---|
| | Citrus farms | Deciduous orchard farms | Vineyard farms | All orchard and vineyard farms | Field crop and dairy[a] farms | All intensive types[b] |
| 1933 | 143 | 107 | 90 | 121 | 103 | 111 |
| 1934 | 107 | 112 | 91 | 106 | 92 | 100 |
| 1935 | 103 | 99 | 80 | 98 | 103 | 100 |
| 1936 | 124 | 104 | 96 | 112 | 99 | 105 |
| 1937 | 111 | 105 | 116 | 109 | 114 | 110 |
| 1938 | 76 | 93 | 106 | 87 | 93 | 91 |
| 1939 | 86 | 100 | 99 | 93 | 91 | 92 |
| 1940 | 108 | 86 | 92 | 97 | 92 | 96 |
| 1941 | 104 | 97 | 127 | 105 | 100 | 99 |
| 1942 | 117 | 106 | 122 | 114 | 120 | 119 |
| 1943 | 166 | 146 | 183 | 161 | 146 | 157 |
| 1944 | 218 | 167 | 224 | 200 | 170 | 188 |
| 1945 | 257 | 200 | 256 | 235 | 194 | 220 |
| 1946 | 266 | 247 | 302 | 264 | 225 | 249 |
| 1947 (Jan.–June) | 257 | 292 | 350 | 285 | 251 | 261 |

Source: Calculated from data of the Farm Credit Administration. [a] Excludes dry grain farms. [b] Excludes dry grain and range lands. Table 2: Calculated from data of the Farm Credit Administration.

## Table 2: INCREASE IN SELLING PRICES OF CALIFORNIA FARMS, SHOWING VARIATION BY AREA

| Year | Expressed in percentages of the 1935–1939 average | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Sacramento Valley | San Joaquin Valley | Combined Central Valley | Central Coast area | Southern Coastal Plain | Combined Coastal areas | Imperial Valley | State |
| 1933 | 78 | 98 | 95 | 113 | 124 | 121 | 145 | 111 |
| 1934 | 80 | 93 | 91 | 114 | 105 | 107 | 90 | 100 |
| 1935 | 86 | 90 | 89 | 104 | 106 | 106 | 80 | 100 |
| 1936 | 92 | 96 | 95 | 112 | 112 | 112 | 104 | 105 |
| 1937 | 110 | 114 | 113 | 102 | 110 | 108 | 102 | 110 |
| 1938 | 108 | 109 | 109 | 82 | 82 | 82 | 107 | 91 |
| 1939 | 106 | 94 | 96 | 98 | 88 | 90 | 109 | 92 |
| 1940 | 91 | 100 | 99 | 90 | 99 | 102 | 117 | 96 |
| 1941 | 102 | 115 | 113 | 89 | 99 | 102 | 96 | 99 |
| 1942 | 115 | 123 | 122 | 106 | 120 | 117 | 122 | 119 |
| 1943 | 129 | 159 | 154 | 144 | 163 | 158 | 144 | 157 |
| 1944 | 147 | 190 | 183 | 165 | 200 | 191 | 176 | 188 |
| 1945 | 168 | 225 | 216 | 201 | 231 | 224 | 211 | 220 |
| 1946 | 203 | 254 | 246 | 264 | 247 | 251 | 211 | 249 |
| 1947 (Jan.–June) | 219 | 279 | 269 | 278 | 235 | 245 | 206 | 261 |

national situation together with plans for aiding foreign countries, the public monetary policy, legislative supports to agriculture, and, perhaps most important of all, the general level of national employment and income.

## FACTORS THAT ADD *PERMANENT VALUE* TO LAND

**. . and that held California's farm land prices up after World War I**

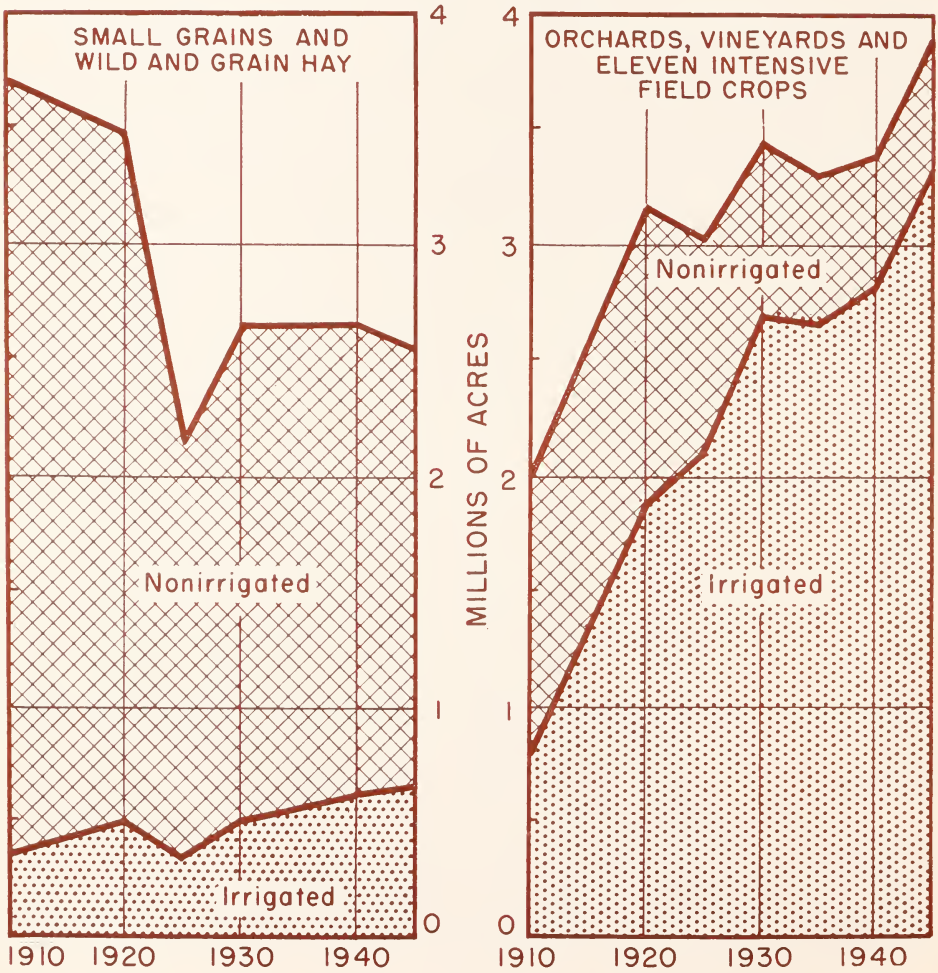
### *Improvements in Farm Real Estate*

Land improvements have increased the productivity of California farm land many-fold. New vineyard plantings, orchards, irrigation systems, and other improvements have brought a higher gross and net return per acre. During the decade of World War I, compared with that of World War II a relatively greater part of the total rise in land prices was represented by land improvements resulting from important shifts in the use of land.

### *Shift to More-Intensive Farming*

The shift from less- to more-intensive farming has been a shift from low to high gross returns per acre. Intensive farming produces more valuable crops

TRENDS IN AGRICULTURAL LAND UTILIZATION IN CALIFORNIA



per acre. In 1944 the average per-acre value of the crop produced on orchard and vineyard lands was $385, on vegetable lands $251, on intensive field crop lands $105, and on grain and unirrigated hay land $28. High returns per acre serve to raise the value of the land. As the agriculture of California has matured, the proportion of the more highly productive and therefore more valuable lands has increased.

Table 3: VALUE OF CALIFORNIA'S MAJOR HARVESTED CROPS

| Major crops harvested 1944 | Total value of crop | Per cent of total | Thousands of acres | Per cent of total | Per acre value of crop |
|---|---|---|---|---|---|
| | 1,000 dollars | | | | dollars |
| INTENSIVE CROPS: | | | | | |
| Fruits and nuts | 578,534 | 54 | 1,503 | 20 | 385 |
| Vegetables sold | 136,048 | 13 | 543 | 7 | 251 |
| Intensive field crops[a] | 268,181 | 25 | 2,554 | 35 | 105 |
| EXTENSIVE CROPS: | | | | | |
| Small grain and grain and wild hay[b] | 79,752 | 8 | 2,855 | 38 | 28 |
| TOTAL | 1,062,515 | 100 | 7,455 | 100 | |

Source: Calculated from data in the United States Census of Agriculture, 1945. [a] Includes all corn and sorghums. [b] Includes mixed grains and oats cut and fed unthreshed.

The period during and after the first world war was marked by a shift to more-intensive farming not equaled before or since. This shift was more than three times greater during the World War I period than during the World War II period. The total acreage of orchards, vineyards, and eleven intensive field crops, highly representative of California agriculture, increased 59 per cent in the decade 1910–1920, but just over 18 per cent in the decade 1935–1945.

Table 4: TRENDS IN AGRICULTURAL LAND UTILIZATION IN CALIFORNIA

| Type of crop | Census year | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1910 | 1920 | 1925 | 1930 | 1935 | 1940 | 1945 |
| | (Thousands of acres) | | | | | | |
| Small grains and wild and grain hay | 3,730 | 3,502 | 2,156 | 2,668 | 2,664 | 2,676 | 2,578 |
| Eleven intensive field crops[a] | 1,060 | 2,016 | 1,662 | 1,861 | 1,778 | 1,993 | 2,426 |
| Orchards and vineyards | 949 | 1,168 | 1,386 | 1,603 | 1,561 | 1,415 | 1,503 |
| Other Cropland | 5,451 | 4,972 | 6,231 | 5,333 | 5,628 | 6,811 | 4,856 |
| Total Cropland | 11,190 | 11,658 | 11,435 | 11,465 | 11,631 | 12,895 | 11,363 |

Source: Calculated and estimated on the basis of the United States Census of Agriculture. Minor deficiencies have been supplied from other sources. Land utilization for any given census year is representative of the previous year. [a] The eleven intensive field crops are: Corn harvested for grain, sorghums harvested for grain, flax, rice, beans, cultivated hay crops excluding grain hay, potatoes, cotton, sweet potatoes and yams, sugar beets, hops.

## Increase in Irrigated Acreage

Irrigation of California farm lands has accompanied the increase of intensive farming. The decade 1910–1920 saw an increase in irrigated acreage of 140 per cent, whereas in the decade 1935–1945 such an increase amounted to but 27 per cent. Much of the increased irrigation of the earlier period was of the highly intensive crops, such as orchards and vineyards, while the smaller recent increase has been primarily an expansion of field crops, also intensive, but not so much so as the expansion of orchards and vineyards during the earlier period.

A study of selling prices of farm land in seven western states clearly points

Table 5: SAMPLE COUNTIES OF SEVEN WESTERN STATES—AVERAGE SELLING PRICES PER ACRE OF RANGE LAND AND CULTIVATED LAND

| Year | Selling price per acre | | | | | |
|---|---|---|---|---|---|---|
| | Range land | | Cultivated land | | | |
| | | | Non-irrigated | | Irrigated | |
| | Dollars | Per cent of 1941 price | Dollars | Per cent of 1941 price | Dollars | Per cent of 1941 price |
| 1941 | 11 | 100 | 60 | 100 | 148 | 100 |
| 1942 | 11 | 100 | 70 | 117 | 171 | 116 |
| 1943 | 15 | 136 | 88 | 147 | 243 | 164 |
| 1944 | 16 | 145 | 106 | 177 | 324 | 219 |
| 1945 | 21 | 191 | 112 | 187 | 386 | 261 |
| 1946 | 25 | 227 | 137 | 228 | 444 | 300 |

Source: Farm Real Estate Market Activity, United States Dept. of Agr.

out the relationship of irrigation to selling price. Results of the study, tabulated below, show the large difference in market price between irrigated and non-irrigated lands, and also show the more rapid rise in market prices of irrigated lands compared with non-irrigated lands. In the early years of the period studied, irrigated land in the seven western states was valued by the buyers and sellers at about two and one-half times that of non-irrigated cultivated land. During the last two years, when land values had more than doubled, the value of irrigated land had increased to three and one-half times that of non-irrigated land.

## Subdivision of Land

Smaller farms increase in number with intensification of agriculture. They have an important effect upon the average price of farm land. Each of the smaller farms requires an individual set of buildings, wells, and all the other improvements. Spread over the smaller acreage the value of these improvements adds to the per-acre land value. For these and other reasons, small farms in general sell for higher prices per acre.

Table 6: CALIFORNIA FARMS—THE RELATION OF SIZE TO VALUE

| Class of farms by size (acres) | Average size of farm (acres) | Average value per acre | Number of farms |
|---|---|---|---|
| 3–9 | 5 | $1,559 | 27,673 |
| 10–29 | 16 | 853 | 37,223 |
| 30–49 | 38 | 503 | 16,314 |
| 50–69 | 58 | 453 | 7,246 |
| 70–99 | 81 | 335 | 8,262 |
| 100–139 | 115 | 299 | 5,548 |
| 140–179 | 157 | 201 | 5,442 |
| 180–219 | 197 | 216 | 2,535 |
| 220–259 | 237 | 190 | 1,988 |
| 260–379 | 314 | 157 | 4,113 |
| 380–499 | 433 | 126 | 2,333 |
| 500–699 | 587 | 107 | 2,533 |
| 700–999 | 826 | 85 | 2,019 |
| 1,000–4,999 | 2,030 | 47 | 4,869 |
| 5,000–9,999 | 6,774 | 27 | 653 |
| 10,000 and over | 24,835 | 18 | 417 |
| Total number of farms | ..... | ..... | 129,168 |

Source: United States Census of Agriculture 1945.

The relation of size of California farms to their average 1946 value per acre is shown in table 6. Farms of three to nine acres averaged in value $1559 an acre; the per-acre value decreases as the size increases until farms in the 700-to-999 acre class were valued at $85 an acre, while farms of 10,000 acres averaged only $18 an acre.

This development of the smaller farm was a trend of the first world war period, but not of the second war period. In the period 1910–1920 the percentage of farms under 50 acres increased from 49 per cent to 56 per cent. During the decade 1935–1945 the percentage of farms under 50 acres, 66 per cent, did not change.

Table 7: NUMBER OF FARMS BY SIZE IN CALIFORNIA

| Size of farm | 1910 | | | 1920 | | | 1935 | | | 1945 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of farms | Per cent of all farms | | Number of farms | Per cent of all farms | | Number of farms | Per cent of all farms | | Number of farms | Per cent of all farms | |
| Under 10 acres | 10,593 | 12 | 49 | 16,697 | 14 | 56 | 34,076 | 23 | 66 | 37,422 | 27 | 66 |
| 10–49 acres | 32,546 | 37 | | 49,093 | 42 | | 64,752 | 43 | | 53,537 | 39 | |
| 50–99 acres | 10,680 | 12 | 51 | 15,034 | 13 | 44 | 17,121 | 11 | 34 | 15,508 | 11 | 34 |
| 100–499 acres | 24,566 | 28 | | 26,888 | 23 | | 24,243 | 16 | | 21,959 | 16 | |
| 500–999 acres | 5,119 | 6 | | 5,052 | 4 | | 4,913 | 3 | | 4,552 | 3 | |
| 1,000 acres and over | 4,693 | 5 | | 4,906 | 4 | | 5,255 | 4 | | 5,939 | 4 | |

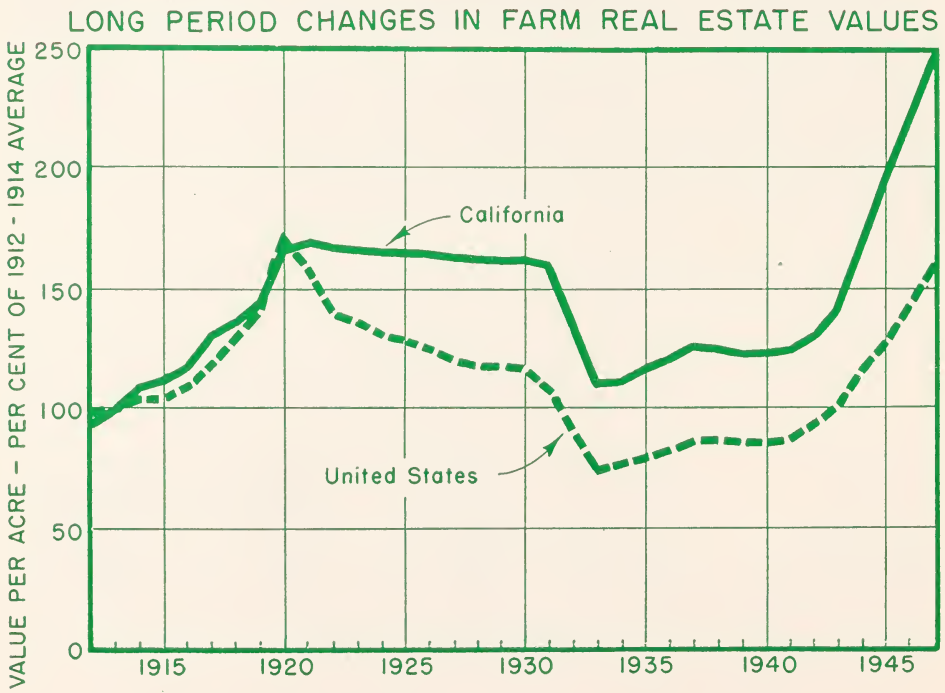
Source: Calculated from data in the United States Census of Agriculture, Dept. of Commerce.

## AGRICULTURAL DEVELOPMENT AND FUTURE LAND VALUES

In the foregoing pages it has been shown that in the 1920's there had been a rapid increase in the California acreage of intensive crops, a sharp rise in the proportion of those crops irrigated, and an increase in the proportion of small size farms. All of these resulted in a level of farm real estate values which was higher than earlier peace-time values and which had a certain degree of permanence.

Before 1930, expansion of orchards and vineyards had come to an abrupt stop, and increases in the expansion of intensive field crops had been checked. The proportion of the total cropland acreage irrigated increased thereafter at a greatly reduced rate, and the percentage of small farms in the total ceased to increase. Rates of development were somewhat increased again by World War II and may be a partial explanation of the more rapid rise of California land values compared with those of the United States. However, no such expansion took place as was characteristic of the 1920's.

As we look forward to future land values, this difference in agricultural development in the two war periods is important. *As a great and lasting influence upon land values, agricultural development cannot be expected to be as important during the period immediately following World War II as it was in the corresponding years following World War I.* The completion of the Central Valley Project may create such an influence, but at a later time.



# HOW DO PRICES RECEIVED BY FARMERS AFFECT LAND PRICES?

**Commodity Prices** are basic in accounting for changes in farm land values. The relation between farm commodity prices and land values, however, is not precise. The reasons are complex but are about as follows:

**Gross Returns** from farming are made up from commodity prices and the physical volume of production. A portion of gross returns is used to defray cash costs of production. (At the end of October 1947 gross marketings of California farm products were still increasing rapidly as shown in table 8).

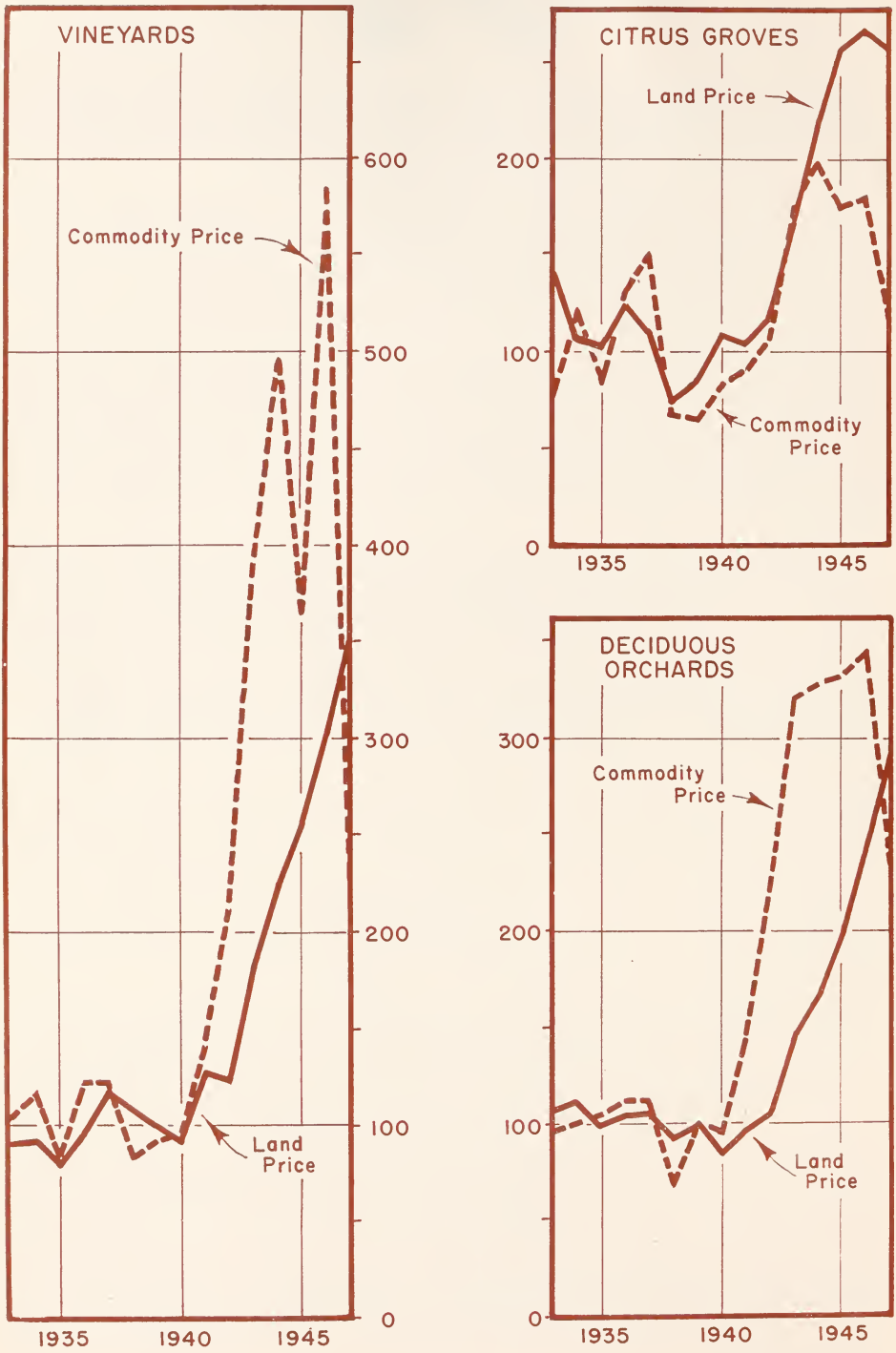
**Costs of Production** including wages and prices of materials and equipment which farmers buy, tend to lag behind the rise and fall of farm commodity prices. Costs often reach their peak after farm commodity prices begin to fall. In the later stages of a period of inflation and during price decline, therefore, costs of production tend to become a larger and larger proportion of gross returns.

**Net Farm Income** is the remainder after cash costs of production are paid. It is the return to the farmer for his own labor and management, interest on his operating capital and payment for the use of his land. Net farm income temporarily becomes a greater-than-normal proportion of the gross return when farm commodity prices are rising. When farm commodity prices are declining, the opposite happens and net returns may be entirely eliminated.

**Net Land Income** is the most important basis of farm land value. It is seldom measured statistically, however, except where land is rented. In the case of owner-operated farms, buyers and sellers can make only rough estimates of the portion of net farm income that can be considered as net income of the land and fixed improvements. That they do make some such estimate, however, is indicated by the fact that only a portion of the large net farm incomes of inflationary periods has been reflected in land prices.

**Other Factors** tend to bring land prices into line with commodity prices. In times of high prices, money for the purchase of farms becomes plentiful from both agricultural and nonagricultural sources. The general purchasing power of money declines and farm land price trends tend to resemble those of commodity prices. However, buyers and sellers of farm real estate probably recognize the temporary character of extremely high and extremely low commodity prices, and in the later stages of such extreme periods tend to become more conservative in real estate transactions. As a result average land prices, though following the same general trend, are inclined to be less variable over a period of time than are commodity prices. Farm land prices, thus, tend to be based more upon expected future returns than upon current abnormal commodity prices.

SELLING PRICES OF LAND
COMPARED WITH SELLING PRICES OF PRODUCTS
(PER CENT OF THE 1935 - 1939 AVERAGE)



## RELATION OF COMMODITY PRICES TO FARM REAL ESTATE PRICES IN CALIFORNIA

The important effect of commodity prices upon farm land prices has been explained. Now it is necessary to observe the actual relationship existing between trends of commodity prices and trends of land prices in California.

California land prices followed roughly the trends of farm commodity prices, but land prices increased later than, and in general did not increase or decrease so much as did farm commodity prices.

DIFFERENT TYPES OF FARMING have shown in general similar responses of land price to commodity price. Both have been rising sharply. There have been differences, however. The charts on pages 12 and 14 show how prices both of farm lands and of commodities produced on them have moved upward under the influences of inflation. They also show how commodity and land prices have differed in their relations to each other in the different types of farming.

**Grape Prices** in 1946 were nearly six times as great as the 1935–1939 average. Vineyard land prices on the other hand, had reached in that year a level just over three times their 1935–1939 average. A part of this difference between the rises in commodity price and land price is explained by the fact that land prices lag behind commodity prices. On the other hand, grape prices increased at a much greater rate than did land prices. In 1947 grape prices had turned sharply downward. Up to the middle of 1947 a corresponding downward turn in vineyard farm real estate values had not taken place.

**Prices of Deciduous Fruits,** like those of grapes, increased after 1940 more rapidly than did the prices of land on which they were produced. Like grapes, deciduous fruit prices turned sharply downward in 1947 but not to such an extent. Like those of vineyards, prices of deciduous orchard lands had not up to the middle of 1947 indicated the pending drop which may be expected if commodity prices continue to decline.

**Prices of Citrus Fruits** from 1939 to 1943 increased more rapidly than did prices of citrus farm lands. The trends of commodity and land prices during this period were similar to those of grapes and deciduous fruits and the lands on which they were produced. During the period 1944–1947 the relation of farm land prices to commodity prices in the citrus industry was quite different from that in the grape and deciduous fruit industries.

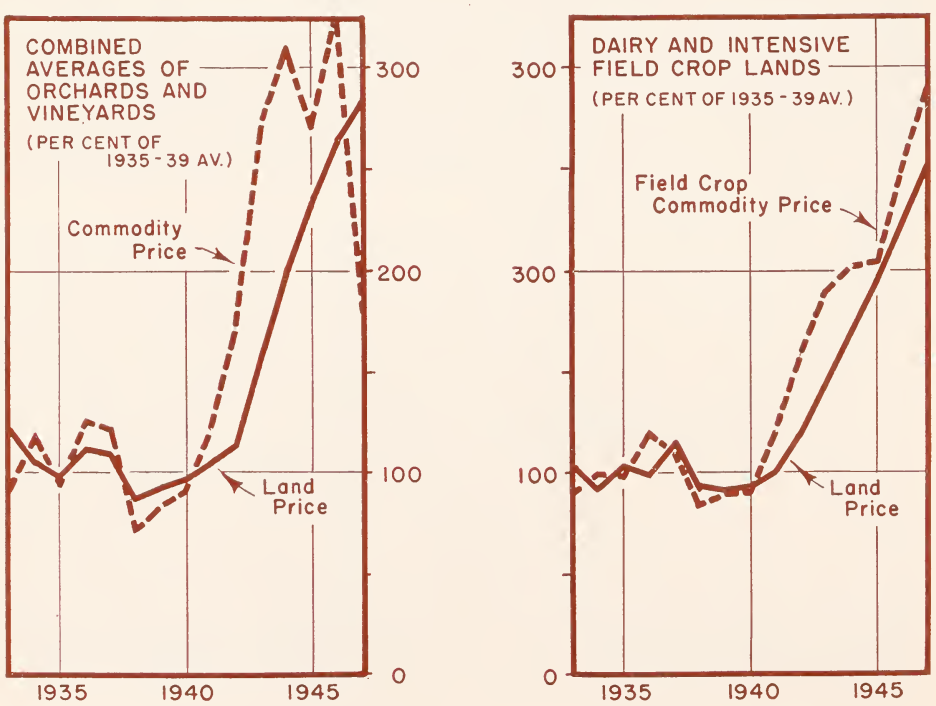
Average citrus fruit prices reached a peak in 1944 nearly double their pre-war average. Citrus farm real estate prices, on the other hand, continued sharply upward to a peak more than two and a half times the pre-war average. This peak was reached in 1946. Thus, relative to pre-war averages, citrus land values increased a greater amount than did prices of citrus fruit. Although average citrus fruit prices were lower in 1945 and in 1946 than they were in 1944, they still remained at a sufficiently high level to support continued increases in citrus farm real estate prices. Factors contributing to these increases in citrus

farm land values include the phenomenal suburban development of Southern California, stimulated by population growth and increased industrialization.

In 1947 average citrus fruit prices declined sharply and citrus farm land prices also turned downward. There has been much local variation from the general trends described above. This variation has been due to many causes including differences in the behavior of the prices of lemons, grapefruit and oranges. The price of each of these fruits has deviated considerably from the general average.

**Prices of Intensive Field Crops** were still rising in the closing months of 1947—as were the prices of field crop and dairy farm lands. The final character of inflationary trends within this type of farming may not have been completed at that time. The upward trends were similar, however, to those of other types of farming. If prices of intensive field crops and their effect upon land prices follow the same pattern as that of fruit crop prices, the land prices would continue upward for a time after the crop prices begin to fall. But there seems to be a shorter lag of field crop land prices behind field crop prices than has been indicated for the fruit industries.

**Trends in the combined average prices** of orchard and vineyard fruits and of intensive field crops are presented in the charts on this page. The trends in the prices of farm lands on which these commodities are grown are also shown. These charts emphasize the fact that certain dominant relations between land and commodity prices indicated for the different types of farming pertain in general to all types.



## Table 8: GROSS RETURNS FROM FARM MARKETINGS IN CALIFORNIA 1935 TO 1947

| Year | Cash receipts | Percentage of 1935–1939 average |
|---|---|---|
| | Thousand dollars | |
| 1935 | 566,177 | 90 |
| 1936 | 653,493 | 104 |
| 1937 | 726,113 | 116 |
| 1938 | 579,472 | 93 |
| 1939 | 606,007 | 97 |
| 1940 | 651,116 | 104 |
| 1941 | 860,437 | 137 |
| 1942 | 1,148,351 | 183 |
| 1943 | 1,575,165 | 252 |
| 1944 | 1,726,347 | 276 |
| 1945 | 1,832,668 | 293 |
| 1946 | 2,075,557 | 331 |
| 1947 | 2,131,597* | 340* |

Source: 1935–1946, United States Dept. of Agr., Bur. of Agr. Econ. * 1947, Estimated for the year on basis of January–October figures, and their percentage applied to 1946 receipts.

## Table 9: PRICES OF CALIFORNIA ORCHARD AND VINEYARD FRUITS AND FIELD CROPS 1933–1947

| | Prices by crop group in dollars per ton | | | | Percentages by crop group of the 1935–1939 average | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Citrus | Deciduous tree fruits | Grapes | All tree fruits and grapes | Citrus | Deciduous tree fruits | Grapes | All tree fruits and grapes | Field crops |
| 1933 | 32 | 25 | 16 | 24 | 78 | 97 | 103 | 92 | 90 |
| 1934 | 50 | 29 | 18 | 31 | 121 | 112 | 115 | 118 | 100 |
| 1935 | 35 | 27 | 13 | 25 | 85 | 105 | 83 | 95 | 98 |
| 1936 | 54 | 29 | 19 | 33 | 131 | 112 | 122 | 126 | 119 |
| 1937 | 62 | 29 | 19 | 32 | 150 | 112 | 122 | 122 | 110 |
| 1938 | 28 | 18 | 13 | 19 | 68 | 70 | 83 | 73 | 84 |
| 1939 | 27 | 26 | 14 | 22 | 66 | 101 | 90 | 84 | 89 |
| 1940 | 34 | 25 | 15 | 24 | 83 | 97 | 96 | 92 | 90 |
| 1941 | 37 | 38 | 22 | 32 | 90 | 147 | 141 | 122 | 121 |
| 1942 | 44 | 59 | 33 | 45 | 107 | 229 | 212 | 172 | 158 |
| 1943 | 72 | 83 | 61 | 71 | 175 | 322 | 391 | 271 | 189 |
| 1944 | 82 | 85 | 77 | 81 | 199 | 329 | 494 | 309 | 202 |
| 1945 | 72 | 86 | 57 | 71 | 175 | 333 | 365 | 271 | 204 |
| 1946 | 74 | 89 | 91 | 85 | 180 | 345 | 583 | 324 | 252[a] |
| 1947 | 51 | 61 | 35 | 48 | 124[a] | 236[a] | 224[a] | 183[a] | 291[a] |

Source: From compilations of S. W. Shear and G. M. Kuznets, Giannini Foundation of Agricultural Economics, Univ. of Calif. [a] Preliminary estimates.

### Price Trends Summarized

A SUMMARY OF THE RELATION of changes in prices of farm commodities to changes in prices of farm lands can now be made.

- Fruit prices have tended to increase and decrease relatively more rapidly than have prices of fruit lands.
- Trends in fruit prices are similar to subsequent trends in fruit land prices.
- Fruit prices, with a notable exception in the citrus industry, have tended to reach relatively higher levels in times of inflation than have fruit land prices.
- Fruit prices without exception have tended to reach relatively lower levels in times of depression than have fruit land prices.
- Field crop commodity prices were the only major group of California crop prices that had not turned downward before the end of 1947. Increasing field crop land values at that time were supported by increasing commodity prices.

### Commodity Prices as a Barometer

Commodity prices are an important aid where judgment must be made with respect to future trends in the farm real estate situation. Such judgments are limited in accuracy by the fact that the future trend of commodity prices itself is uncertain. There is some advantage in the fact that commodity price changes usually precede those of land prices. The lag of farm land prices behind those of commodity prices, however, is not invariable. Accuracy in judging future trends may be increased by taking into consideration the similarities and differences noted in the discussion above between trends of commodity prices and those of farm real estate prices.

*Abnormally high land prices, supported by abnormally high commodity prices, are quite certain to be temporary.*

## THE TREND IN FARM FINANCING . . . .

### The Decrease in Farm Debt

The farm mortgage debt increased tremendously in World War I; in the World War II period it has decreased. In 1920 the farm mortgage debt in California was 376 per cent of that in 1910, while in 1945 it was only 69 per cent of that in 1935.

On January 1, 1946 the downward trend appeared to be at an end, for the decrease in 1945 was less than a million dollars—the least of any year since 1940. The total farm mortgage debt on January 1, 1946 was $317,962,000 com-

pared to a peak of $615,322,000 in 1931, although the total value of farm land in 1946 was considerably higher than at the earlier date. By January 1, 1947 the debt had increased to $342,608,000 as shown in table 10.

Table 10: CALIFORNIA'S FARM MORTGAGE DEBT, BY TYPE OF LENDER

| Jan. 1 | Land bank and commissioner | Joint stock land bank | Life insurance companies | Insured commercial banks | Individuals and others | Farm Security Adm. | Total farm mortgage debt |
|---|---|---|---|---|---|---|---|
| | (Thousands of dollars) | | | | | | |
| 1930 | 29,373 | 29,185 | 22,809 | (a) | 533,443 | ..... | 614,810 |
| 1931 | 28,869 | 27,655 | 22,280 | (a) | 536,518 | ..... | 615,322 |
| 1932 | 28,236 | 26,166 | 22,126 | (a) | 518,322 | ..... | 594,850 |
| 1933 | 27,242 | 23,565 | 20,884 | (a) | 487,869 | ..... | 559,560 |
| 1934 | 44,953 | 20,098 | 19,414 | (a) | 419,933 | ..... | 504,398 |
| 1935 | 129,036 | 10,280 | 16,809 | 115,563 | 189,047 | ..... | 460,735 |
| 1936 | 144,859 | 4,658 | 15,675 | 109,986 | 170,129 | ..... | 445,307 |
| 1937 | 148,897 | 2,533 | 15,197 | 107,078 | 166,031 | ..... | 439,736 |
| 1938 | 148,452 | 392 | 17,371 | 105,602 | 160,985 | ..... | 432,802 |
| 1939 | 146,133 | 1 | 16,366 | 105,416 | 154,931 | 91 | 422,938 |
| 1940 | 139,312 | 1 | 15,241 | 103,471 | 149,237 | 323 | 407,585 |
| 1941 | 137,168 | 1 | 14,810 | 97,231 | 148,197 | 679 | 398,086 |
| 1942 | 131,368 | (b) | 14,067 | 86,910 | 147,863 | 1,208 | 381,416 |
| 1943 | 118,992 | (b) | 13,869 | 72,769 | 148,374 | 1,643 | 355,647 |
| 1944 | 94,929 | 0 | 11,766 | 53,718 | 165,902 | 1,843 | 328,158 |
| 1945 | 77,267 | 0 | 14,099 | 48,007 | 177,700 | 1,772 | 318,845 |
| 1946 | 67,556 | 0 | 16,246 | 49,383 | 183,150 | 1,627 | 317,962 |
| 1947 | ..... | ..... | ..... | ..... | ..... | ..... | 342,608 |

Source: Data in Agr. Finance Review, and later revisions in Farm Mortgage Debt, both published by United States Dept. of Agr. [a] Included in "individuals and others." [b] Less than $500.

One characteristic difference in the situation is that in World War I most farmers were going heavily into debt and expanding their operations. Not only mortgage, but short-term credit was greatly expanded. Farmers still remember the price drop which followed World War I and have made a serious effort to get out of debt while prices were good. This fact is evidenced by the great number of loans paid off during the War. Most of the loans now outstanding are new loans, just beginning to be paid off. Earlier in the 1940's the farm mortgage debt was larger, but a far greater proportion of the loans had been paid down below the danger point.

## The Swing to Individual Loans

As an inflationary period advances, financial institutions can handle a smaller and smaller proportion of the necessary loans because the amount required to finance the purchase of a farm is too great a proportion of the normal value of the security for them to lend. As a result, more and more of the financing must be handled by individuals, usually the sellers. In 1939 individuals held 37 per cent of the farm mortgage debt in California and in 1946 they held 58 per cent.

Records show that the size of loan held by individuals has more than doubled in recent years. In California in 1940 the average size of loans held by individuals was $3476 and in 1946 was $7274, an increase of 109 per cent. This is borne out in studies of farm loans in certain counties. In Tulare County, for example, mortgages represented 76 per cent of the sale price of encumbered farms in both 1941 and 1946. Inasmuch as in this period land prices have doubled, the amount of the average mortgage has doubled also.

What would be the attitude of individual lenders in case of a collapse of farm land values? It often happens when depression comes that the seller who holds the mortgage is unable to be as lenient as he had intended and the buyer had expected. The terms then are apt to be more severe than those of a credit institution. Many of these loans have to be refinanced on a falling market when credit is hard to get and the credit institutions also are less lenient.

## Should You Buy?

This discussion indicates that this is a poor time to buy land even though earnings are still good. Net income margins are decreasing. It usually takes many years to pay for a farm, and most of the price has to be paid out of future earnings. As farm commodity prices rise and earnings increase, farmers tend to misjudge the prospects for long-term average earnings from the farm. To purchase now means a shrinkage of capital as well as income when the price level falls. Even where the farm is too small to be an economic unit this principle may still apply. A farmer may find himself in a much stronger bargaining position in a few years if he has accumulated his funds with a view to future land purchase.

## Should You Borrow?

Purchasers of land who borrow more than the normal value of the land should realize that they are gambling on their ability to repay the difference before prices fall. If 1942 values be considered normal, the California market price of all land has already advanced 91 per cent. Since credit institutions can lend but 60 or 65 per cent of normal, the purchaser must have an equity of 65 to 70 per cent of the present market price before he can be sure of refinancing when prices fall.

Values of fruit and truck land have advanced much more than the average value of all land, and farmers who have borrowed to buy this land must have an even larger equity in the property to be sure of refinancing later if necessary.

If good progress in paying for the land has not been made, sale of part of the property may be desirable to protect the owner's equity in the balance. Sale should not be delayed too long, for real estate activity is decreasing. The number of sales per thousand farms is fewer each year. This tends to make the sale price lower the longer the delay in selling.

# WHAT CONCLUSIONS MAY WE DRAW?

Forecasts are hazardous. The future always is uncertain. The facts of the foregoing discussion lead to these conclusions:

The factors making for permanent increases in land values, which were so notable after World War I are present in far smaller degree in the present situation.

Fruit prices, a factor of major importance in California farm land prices, have turned downward. Prices of other farm commodities in California are abnormally high compared with those of historical experience. If fruit prices should remain at 1947 levels, and if field crop prices should turn downward, then California farm land prices undoubtedly would decline.

There are certain factors at work in California's economy which might, however, tend to work against a sharp drop in farm land values. These may be enumerated as follows:

- *Increased demand for California farm products and therefore for farm land, through population increase;* (California's population increase is greater than that of any other state. The rapid growth of population is causing also an increased use of California farm lands for residential purposes.)
- *Cost-reducing improvements;*
- *Increased irrigation development;*
- *Continued aid to Europe;* (Direct benefits to California farmers from this source will be less than for the other states because California products do not enter to such a great extent into foreign relief.)
- *Legislative props to agriculture and to the general economy;* (Here again, California does not enjoy the same protection from price supports as do other states. Only 25 per cent of the commodities produced in California are included in price-support commitments, while 60 per cent of those in the United States as a whole come under such protection.)
- *Maintenance of a high level of employment throughout the United States*—the most important market for California products.

California farm land values in certain areas late in 1947 were leveling off and even showing a slight decline.

The present is clearly not the time to buy farm land, especially if a large part of the purchase price is to be borrowed.

The table below presents the source data from which charts on pages 2, 3, and 10 were drawn. Farm real estate values associated with World War I have been calculated as percentages of the 1912–1914 average. Those associated with World War II have been calculated as percentages of the 1935–1939 average. Long period changes in farm real estate values through both wars and the intervening years have been discussed in terms of percentages of the 1912–1914 average.

## Table 11: FARM REAL ESTATE VALUES OVER THE PERIODS OF TWO WARS

| Year | Changes in average values per acre as of March 1 of each year | | | |
|---|---|---|---|---|
| | Expressed in percentages of 1912–1914 average | | Expressed in percentages of 1935–1939 average | |
| | California | United States | California | United States |
| 1912 | 93 | 97 | 77 | 117 |
| 1913 | 99 | 100 | 82 | 121 |
| 1914 | 108 | 103 | 90 | 124 |
| 1915 | 111 | 103 | 92 | 124 |
| 1916 | 116 | 108 | 96 | 131 |
| 1917 | 130 | 117 | 108 | 142 |
| 1918 | 136 | 129 | 113 | 156 |
| 1919 | 142 | 140 | 118 | 169 |
| 1920 | 167 | 170 | 139 | 205 |
| 1921 | 168 | 157 | 139 | 190 |
| 1922 | 166 | 139 | 138 | 168 |
| 1923 | 165 | 135 | 137 | 163 |
| 1924 | 164 | 130 | 136 | 157 |
| 1925 | 164 | 127 | 136 | 153 |
| 1926 | 163 | 124 | 135 | 150 |
| 1927 | 162 | 119 | 134 | 144 |
| 1928 | 161 | 117 | 134 | 142 |
| 1929 | 160 | 116 | 133 | 140 |
| 1930 | 160 | 115 | 133 | 138 |
| 1931 | 158 | 106 | 131 | 128 |
| 1932 | 133 | 89 | 110 | 107 |
| 1933 | 109 | 73 | 90 | 88 |
| 1934 | 110 | 76 | 91 | 92 |
| 1935 | 115 | 79 | 96 | 95 |
| 1936 | 119 | 82 | 99 | 99 |
| 1937 | 124 | 85 | 103 | 102 |
| 1938 | 123 | 85 | 102 | 103 |
| 1939 | 121 | 84 | 100 | 101 |
| 1940 | 121 | 84 | 100 | 102 |
| 1941 | 122 | 85 | 101 | 103 |
| 1942 | 128 | 91 | 106 | 110 |
| 1943 | 141 | 99 | 117 | 120 |
| 1944 | 168 | 114 | 139 | 138 |
| 1945 | 193 | 126 | 160 | 152 |
| 1946 | 219 | 142 | 182 | 171 |
| 1947 | 244 | 159 | 202* | 192* |

These are plotted on page 2

These are plotted on page 10

These are plotted on page 3

Source: United States Dept. of Agr., Bureau of Agricultural Economics. * Data calculated by writers from 1912–1914 base data.

15m-3,'48(A7641s)